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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 04/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/401,730

Applicant(s)

FEI ET AL.

Examiner

Thanh X Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 22-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 28, 2002 has been entered.

Claims 1-18 and 22-29 are currently pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-17 and 26-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 5, 14, 26 and 27, it is unclear in its given context how a slot, which has no defined shape and axis, be coaxial with a hole. Furthermore, it is unclear how a slot is "out of alignment" with a hole. At least from Figure 2 of Applicant's invention, it is unclear which part of the slot 9 of Applicant's invention is "coaxial" with the hole and it appears that the slot is always in alignment with the hole. When the slot 9 is out of alignment, no areas of the slot align with the hole and there would be no space for the fiber. Thus, as interpreted, a slot can be coaxial with a hole when any part of a slot

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aligns with the hole. A misalignment occurs when that part of the slot moves from the coaxial position to another position relative to the hole.

Claims 6-17, 22, 28 and 29 are indefinite by virtue of their dependency on an indefinite claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 23, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi et al. (U.S. Patent 4,720,630).

Regarding claims 1, 2 and 23, Takeuchi et al. disclose (see Figures 6 and 7) a securing device for releasably connecting at least one optical fiber (6b) to an optical apparatus (4), the optical apparatus comprises at least one photo-element (3b) mounted on a supporting element (1 or 3), the device including means for releasably connecting (7, 8) the at least one optical fiber in optical alignment with the at least one photo-element, wherein at least part of the device or a cover is made from a transparent material (material 8) making a region of optical alignment in coupling between the at least one optical fiber and the at least one photo-element externally visible. That is, since the fiber and the photo element structures of Takeuchi et al. are not molded from a single integral body, the elements releasably connect.

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6. Claims 5-7, 9-11, 22 and 26, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (U.S. Patent 4,986,625).

Regarding claims 5, 22 and 26, Yamada et al. disclose (see Figures 1, 2 and 4A-4C) a securing device for connecting at least one optical fiber to an optical apparatus, the apparatus comprising at least one photo-element (6), the optical fiber connectable to the photo-element and at least one supporting element (10) provided with at least one guide hole (13) for the optical fiber wherein the device comprises a slide (20) provided with at least one slot (the wide-mouth opening part of 22), the slide moveable between a first and second predetermined position, the second position being defined by stops (23), the slot in the first position (Figure 4B) of the slide being coaxial with the hole of the supporting element and freely housing the optical fiber, and the slot in the second position of the slide being out of alignment with the hole (Figure 4C) and exerting on the optical fiber a force which keeps the optical fiber secured in the hole. Yamada et al. further disclose the at least one photo-element mounted on the supporting element.

Regarding claims 6 and 7, Yamada et al. disclose (see Figures 11 and 13) the slide is provided with at least two slots and the optical apparatus is provided with at least two optical fibers.

Regarding claims 9-11, Yamada et al. further disclose (see Figures 4A-4C) the slot comprises a semi-circular portion having a radius greater than a radius of the optical fiber and the portion having a projecting arm or the slot is substantially C-shaped.

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7. Claims 5, 8-10, 12, 26 and 28, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Welber et al. (U.S. Patent 4,605,280).

Regarding claims 5 and 26, Welber et al. disclose (see Figures) a device for securing at least one optical fiber to an optical apparatus, the apparatus comprising at least one photo-element (within 10), the optical fiber connectable to the photo-element and at least one supporting element (28) provided with at least one guide hole (38) for the optical fiber wherein the device comprises a slide (40, 58) provided with at least one slot (46, 62, 64), the slide moveable between a first and second predetermined position, the second position being defined by stops (when 66 and 68 hits 50), the slot in the first position of the slide being coaxial with the hole of the supporting element and freely housing the optical fiber, and the slot in the second position of the slide being out of alignment with the hole (see Figure 3) and exerting on the optical fiber a force which keeps the optical fiber secured in the hole.

Regarding claims 8 and 28, Welber et al. disclose (see Figure 2) a cover (26) provided with at least one hole (38) for the passage of the optical fiber, the cover provided with an enclosure (50, 32) capable of supporting the slide so that it is free to slide, and elastic means (82) in engagement with the slide to keep it in the second position.

Regarding claim 9, 10 and 12, Welber et al. disclose (see Figure 2) the slot comprises a semi-circular portion (69) having a radius greater than the radius of the optical fiber. Welber et al. also disclose (see Figure 2) the semi-circular portion of the

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slot has a projecting arm (66, 68). Further, Welber et al. disclose (see Figure 2) a notch (shown near numeral 60), which is capable of imparting elasticity to the arm.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 4, 18, 24 and 25, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al.

Regarding claims 3, 18 and 25, Takeuchi et al. do not specifically disclose the supporting element as being transparent. However, the type of material of the supporting element is design choice since it does not affect the functionality of the device. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a transparent material for the supporting element of Takeuchi et al. as desired.

Regarding claims 4 and 24, Takeuchi et al. disclose a transparent sheath (8). Takeuchi et al. do not specifically disclose the specific type of transparent material used. However, the claimed transparent materials are well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make the transparent sheath of Takeuchi et al. out of a claimed plastic in order to provide a durable, yet, inexpensive transparent cover. Furthermore, the specific type of material chosen is a matter of design choice.

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10. Claims 13-17, 27 and 29, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Welber et al. in view of Kato (U.S. Patent 5,555,333).

Regarding claims 13-17, 27 and 29, Welber et al. further disclose (see Figures) the slide is provided with a pin (88) used for centering the spring. Welber et al. do not disclose the slide, cover and supporting element is made from a transparent material. Kato discloses (see Figures and column 15, lines 45-50) making the substrate (22) formed from transparent glass. Thus, Kato recognizes that by making material transparent, alignment of the elements would be easier. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to make the slide, the cover and the supporting element of Welber et al. in view of Kato in order to aid in aligning the elements and improve detection.

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-4 and 23-25 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 5-7, 9-11, 22 and 26 as rejected over Yamada et al., Applicant's arguments are not persuasive. Applicant argues that since the slot of Yamada et al. (in its second position) is in alignment with the hole the "out of alignment" limitation is not met. However, as understood, Examiner has specified that the "slot" actually consist of the wide-mouth part of the opening 22 of Yamada et al. Thus, in its second position, the slot or wide-mouth portion of 22 is out of alignment with the hole. Applicant's invention works the same way. As seen in Figure 2 of Applicant's invention, a slot 9 (corresponding to the wide-mouth portion of 22 in Yamada et al.) has a notch 30



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(corresponds to the narrow portion of 22 in Yamada et al.). As understood, when the slot 9 is in alignment with the hole and in its first position, the fiber is free to move. When the slot is in its second position (when the notch abuts the fiber), the slot is out of alignment. That is, Applicant's slot consists of a wide portion 9 and a narrow portion 30. Similarly, Yamada et al. disclose a wide portion and a narrow portion of a slot 22 functioning as claimed. Thus, the invention of Yamada et al. does anticipate the claimed invention.

Regarding the rejection over Welber et al., as interpreted, the slot of Welber et al., at a position where the fiber is free to move, is coaxial to the hole. The slot is out of alignment when the slot moves from its coaxial position. Thus, Welber et al. does disclose the claimed invention, as understood.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seungsook Ham, can be reached on (703) 308-4090. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl  
April 10, 2002

  
Que T. Le  
Primary Examiner